

## Product datasheet for **SC321562**

### Biglycan (BGN) (NM\_001711) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Biglycan (BGN) (NM_001711) Human Untagged Clone
Tag:	Tag Free
Symbol:	Biglycan
Synonyms:	DSPG1; MRLS; PG-S1; PGI; SEMDX; SLRR1A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_001711.3  
 CCCAGGAGTGAGTAGCTGCTTTCCGGTCCGCCGGACACACCCGGACAGATAGACGTGCGGAC  
 GGCCACCACCCAGCCCTCCAAGTGTGAGCCTGCGCCTGGCGCCTCCCTCTCCAGGT  
 CCATCCGCCATGTGGCCCTGTGGCGCCTCGTGTCTCTGCTGGCCTGAGCCAGGCCCTG  
 CCCTTTGAGCAGAGAGGCTTCTGGGACTTACCCTGGACGATGGGCCATTCATGATGAAC  
 GATGAGGAAGCTTCGGGCGCTGACACCTCAGGCGTCTGGACCCGGACTCTGTACACCC  
 ACCTACAGCGCCATGTGTCTTTCCGGCTGCCACTGCCACTGCGGGTGGTTCAGTGCTCC  
 GACCTGGGTCTGAAGTCTGTGCCCAAAGAGATCTCCCCTGACACCACGCTGCTGGACCTG  
 CAGAACAACGACATCTCCGAGCTCCGCAAGGATGACTTCAAGGGTCTCCAGCACCTCTAC  
 GCCCTCGTCTGGTGAACAACAAGATCTCCAAGATCCATGAGAAGGCCTTCAGCCCACTG  
 CGGAAGCTGCAGAAGCTCTACATCTCCAAGAACCACCTGGTGGAGATCCCGCCAACCTA  
 CCCAGCTCCCTGGTGGAGCTCCGCATCCACGACAACCGCATCCGCAAGGTGCCAAAGGA  
 GTGTTCCAGCGGGCTCCGGAACATGAACTGCATCGAGATGGGCGGGAACCCACTGGAGAAC  
 AGTGGCTTTGAACCTGGAGCCTTCGATGGCCTGAAGCTCAACTACCTGCGCATCTCAGAG  
 GCCAAGCTGACTGGCATCCCAAAGACCTCCCTGAGACCCTGAATGAACTCCACCTAGAC  
 CACAACAAAATCCAGGCCATCGAACTGGAGGACCTGCTTCGCTACTCCAAGCTGTACAGG  
 CTGGGCCTAGGCCACAACCAGATCAGGATGATCGAGAACGGGAGCCTGAGCTTCTGCCC  
 ACCCTCCGGGAGCTCCACTTGGACAACAACAAGTTGGCCAGGGTGCCTCAGGGCTCCCA  
 GACCTCAAGCTCCTCCAGGTGGTCTATCTGCACTCCAACAACATCACAAAGTGGGTGTC  
 AACGACTTCTGTCCATGGGCTTCGGGGTGAAGCGGGCTACTACAACGGCATCAGCCTC  
 TTCAACAACCCCGTGCCTACTGGGAGGTGCAGCCGGCCACTTTCGCTGCGTCACTGAC  
 CGCCTGGCCATCCAGTTTGGCAACTACAAAAGTAGAGGCAGCTGCAGCCACCCGGGGC  
 CTCAGTGGGGTCTCTGGGAACACAGCCAGACATCCTGATGGGGAGGCAGAGCCAGGAA  
 GCTAAGCCAGGGCCAGCTGCGTCCAACCCAGCCCCACCTCGGGTCCCTGACCCGAGC  
 TGATGCCCATCACCGCCTCTCCCTGGCTCCCAAGGGTGCAGGTGGGCGCAAGGCCCGG  
 CCCCCATCACATGTTCCCTTGGCCTCAGAGCTGCCCTGCTCTCCACCACAGCCACCCA  
 GAGGCACCCCATGAAGCTTTTTTCTCGTCACTCCCAAACCAAGTGTCCAAGGTCCAG  
 TCCTAGGAGAACAGTCCCTGGGTGAGCAGCCAGGAGGCGGTCCATAAGAATGGGGACAGT  
 GGGCTCTGCCAGGGTCCCGCACCTGTCCAGACACACATGTTCTGTTCTCTCTCATG  
 CATTTCCAGCCTTTCAACCTCCCGACTCTGCGGCTCCCCTCAGCCCCCTTGAAGTTC  
 ATGGCCTGTCCCTCCCAGACCCCTGCTCCACTGGCCCTTCGACCAGTCTCCCTTCTGTT  
 CTCTTTTCCCGTCT  
 TGT  
 TGAGCTTGGTGGCCTGTTCCCTCCATCTCTCCGAACCTGGCTTCGCCTGTCCCTTCACT  
 CCACACCTCTGGCCTTTCGCTTGAAGTGGGACTGCTTTCTGTCTGTCCGGCCTGCACC  
 CAGCCCCGCCCACAAAACCCAGGGACAGCGGTCTCCCAGCCTGCCCTGCTCAGGCCCT  
 TGCCCCAAACCTGTACTGTCCCGGAGGAGTTGGGAGGTGGAGGCCAGCATCCCGCGC  
 AGATGACACCATCAACCGCCAGAGTCCCAGACACCGGTTTTCTAGAAGCCCTCACCCC  
 CACTGGCCCACTGGTGGCTAGGTCTCCCCTTATCTTCTGGTCCAGCGCAAGGAGGGCT  
 GCTTGTAGGTCGGTGGTGTCTTTCCATTAAAGAAACACCGTGCAACGTGAAAAAAAAA  
 AAAAAAAAAA

**Restriction Sites:** Please inquire  
**ACCN:** NM\_001711  
**Insert Size:** 2620 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [NM\\_001711.3](#), [NP\\_001702.1](#)

**RefSeq Size:** 2401 bp

**RefSeq ORF:** 1107 bp

**Locus ID:** 633

**UniProt ID:** [P21810](#)

**Cytogenetics:** Xq28

**Domains:** LRRNT, LRR, LRR\_TYP, LRR\_PS

**Protein Families:** Secreted Protein

**Gene Summary:** This gene encodes a member of the small leucine-rich proteoglycan (SLRP) family of proteins. The encoded preproprotein is proteolytically processed to generate the mature protein, which plays a role in bone growth, muscle development and regeneration, and collagen fibril assembly in multiple tissues. This protein may also regulate inflammation and innate immunity. Additionally, the encoded protein may contribute to atherosclerosis and aortic valve stenosis in human patients. This gene and the related gene decorin are thought to be the result of a gene duplication. [provided by RefSeq, Nov 2015]